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June 21, 2002

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JUN 21 2002

HAND DELIVERY

Marlene H. Dortch  
Secretary  
Federal Communications Commission  
445 12th Street, S.W.  
Washington, D.C. 20554

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**Re: Notice of Ex Parte Presentation  
Revision of the Commission's Rules to Ensure Compatibility with  
Enhanced 911 Emergency Calling Systems**

CC Docket No. 94-102

Dear Ms. Dortch:

Yesterday, Karl Korsmo, Marsha Olch, and Peter White of AT&T Wireless Services, Inc. ("AWS"), Michelle Mundt of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C., and the undersigned met with Paul Margie, Legal Advisor to Commissioner Copps, and Sam Feder, Legal Advisor to Commissioner Martin, to discuss the status of AWS' pending request for a limited modification of its E911 Phase II waiver in the above-captioned proceeding. At the meetings, AWS discussed the preliminary results it has received during two ongoing First Office Application ("FOA") tests of E-OTD, the Phase II location technology chosen by AWS for its GSM network. AWS also disclosed that these preliminary results, as well as recent letters from certain of AWS' E-OTD vendors, suggest that AWS may not be able to meet the deployment and accuracy milestones set forth in its pending request for limited modification of its E911 Phase II waiver. The vendor letters in question are attached, as is a diagram of AWS' network that was used during the meeting.

Pursuant to section 1.1206(b)(2) of the Commission's rules, an original and one copy of this letter are being filed with the Office of the Secretary. Copies are also being served on the Commission personnel in the meetings.

Respectfully submitted,

*Douglas I. Brandon BTB*

Douglas I. Brandon

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attachments

cc: Paul Margie  
Sam Feder

**ERICSSON** 

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June 7, 2002

JUN 21 2002

FEDERAL COMMUNICATIONS COMMISSION  
OFFICE OF THE SECRETARY

**VIA FACSIMILE**

**Mr. Greg Slemons**  
EVP, Wireless Network Services  
AT&T Wireless  
16331 NE 72nd Way  
Redmond, Washington 98052

**Mr. Rod Nelson**  
EVP and Chief Technology Officer  
AT&T Wireless  
7277 164th Avenue NE  
Redmond, Washington 98052

Dear Sirs,

In my June 4<sup>th</sup> letter to Greg, I indicated that we want to present to you our experience and views on the progress of implementing E-OTD as a location technology in your network and those of other operators. This information is also going to be presented to you in the joint operator meeting about E-OTD in Dallas on June 11. We further intend to present and discuss our findings in the research meeting with Rod Nelson and Mike Bamburak in Kista on Friday of next week.

Let me first confirm that our E-OTD features (including necessary hardware, software and services) is capable of achieving the FCC 2002 accuracy standard of 100 meters, 67% of the time and 300 meters, 95% of the time. This is provided that the voice/data network implements our engineering recommendations and the subscriber terminal, at a minimum, utilizes assistance data provided by the SMPC.

The location accuracy of E-OTD positioning is dependent upon three key factors:

- positioning network design and implementation,
- compatibility of the existing voice/data network with E-OTD positioning requirements,
- E-OTD equipment's (including handsets) ability to use available RF signals for positioning purposes.

The infrastructure investments that are required to meet the 2002 FCC requirements, using our E-OTD features, will vary from market to market based upon network design and market topology. Ericsson's investigations indicate that the infrastructure investment can be reduced if handsets with the most advanced positioning algorithms are used, like scanning algorithms.

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11121 Willows Road N.E., Suite 800  
Redmond, Washington 98052

Telephone: 425-895-3300  
Fax: 425-895-3345





As to our development roadmap for regulatory compliance towards the FCC 2003 accuracy standard of 50 meters, 67% of the time and 150 meters, 95% of the time, no data exists today that can quantify the planned improvements ability to deliver the required accuracy or the resulting additional investments that may be needed for 2003 FCC compliance.

Ericsson is fully committed to evolve the E-OTD product line including enhancements targeting performance improvements which lead to compliance with the FCC 2003 requirements. Therefore, it is imperative that a consolidated industry effort be established to move forward with meeting the FCC 2003 requirements in a cost-effective way.

Ericsson is offering to take the lead role for the vendor community in consolidating the industry effort regarding E-OTD, should this be in the best interest of AT&T Wireless.

Sincerely,

A handwritten signature in dark ink, appearing to read "Stig Rune Johansson".

Stig Rune Johansson  
Executive Vice President and General Manager  
AT&T and Affiliates KAM  
Ericsson Inc.

cc: Angel Ruiz  
Per-Arne Sandström

# NOKIA

June 14<sup>th</sup> 2002

Greg Stemmons  
AT & T Wireless Services In  
PO Box 97061  
Redmond WA  
98073-9761

Dear Greg,

I am responding to your letter dated June 6 regarding EOTD deployment regarding the 50 meter accuracy.

Based on the US trials there is still work to be done to optimize technology for US networks. Nokia has developed an improvement plan to continue the improvement of the E-OTD accuracy, which we have shared with AWS in greater detail in the joint carrier meeting that took place in Dallas on June 11 2002.

The following are the basic activities in the plan:

- Perform deeper Error Source Analysis to determine contributions of individual E-OTD solution components to accuracy error.
- Based on the results from this analysis, prioritize and test the following enhancements:
  - Absolute Time Difference algorithm
  - Longer Averaging Times In Mobile Station
  - Improved Multipath Rejection in Mobile Station
  - Improved Multipath / Interference Rejection In LMU
  - Automatic Self-Configuration of LMU Measurement Lists
  - Coupling BTS Tx-signals with LMU Antennas
- Implement valid enhancements in commercial solution through close cooperation with Nokia Mobile Phones and operators

In addition we should point out that there are key areas that will require AWS focus, (these areas were highlighted in the meeting which took place this week) In particular, changes in network planning and changes in actual antenna configurations may be required in order to achieve the required accuracy.

Regarding the timelines you require Nokia to identify, at the time of writing it is our firm belief that during the second half of 2002 we will gain further knowledge with regard to EOTD. This will enable Nokia to provide AWS some clearer granularity with regard to the specific timelines that you may be requiring.

Nokia, Inc.  
6000 Connection Drive  
Irving, Texas 75039

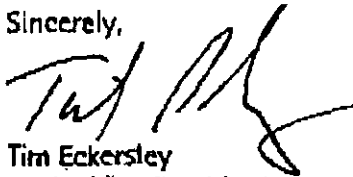
Tel. 972 894 5000  
Fax 972 894 5050

Page 2  
Greg Stemmons  
June 14, 2002

Nokia is working towards achieving the FCC requirement of 50 meter accuracy for 67% of calls by October of 2003 with the program mentioned above aimed at meeting this goal; however this program will not be without challenges. We will be reviewing the plan outlined above with AWS, and are more than willing to share as in as much detail as is currently available to Nokia at this stage.

Please don't hesitate to contact me should you have any questions or comments.

Sincerely,



Tim Eckersley  
Senior Vice President  
Customer Operations

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# **EOTD Network Topology**

**E911 Phase 2 For GSM**

**June 20, 2002**





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# **EOTD Network Topology**

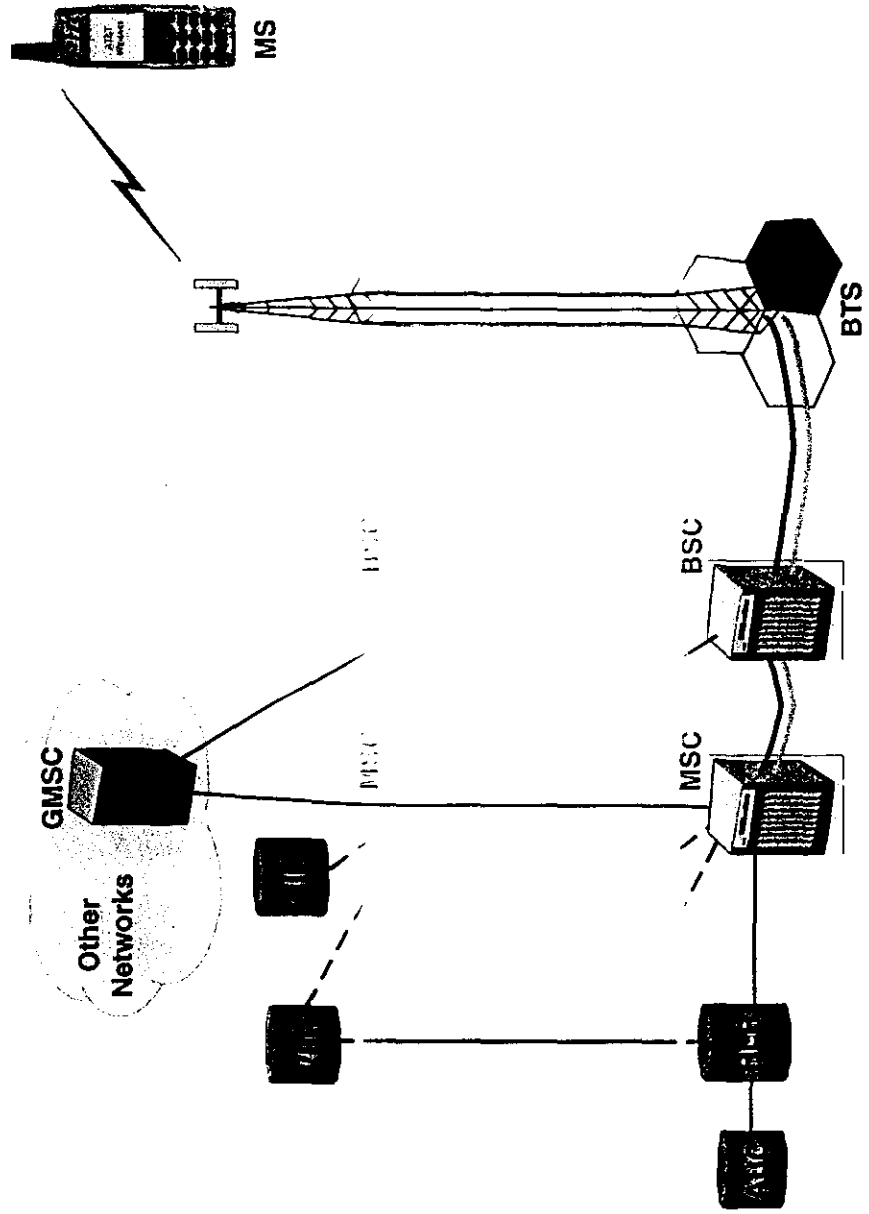
**E911 Phase 2 For GSM**

**June 20, 2002**

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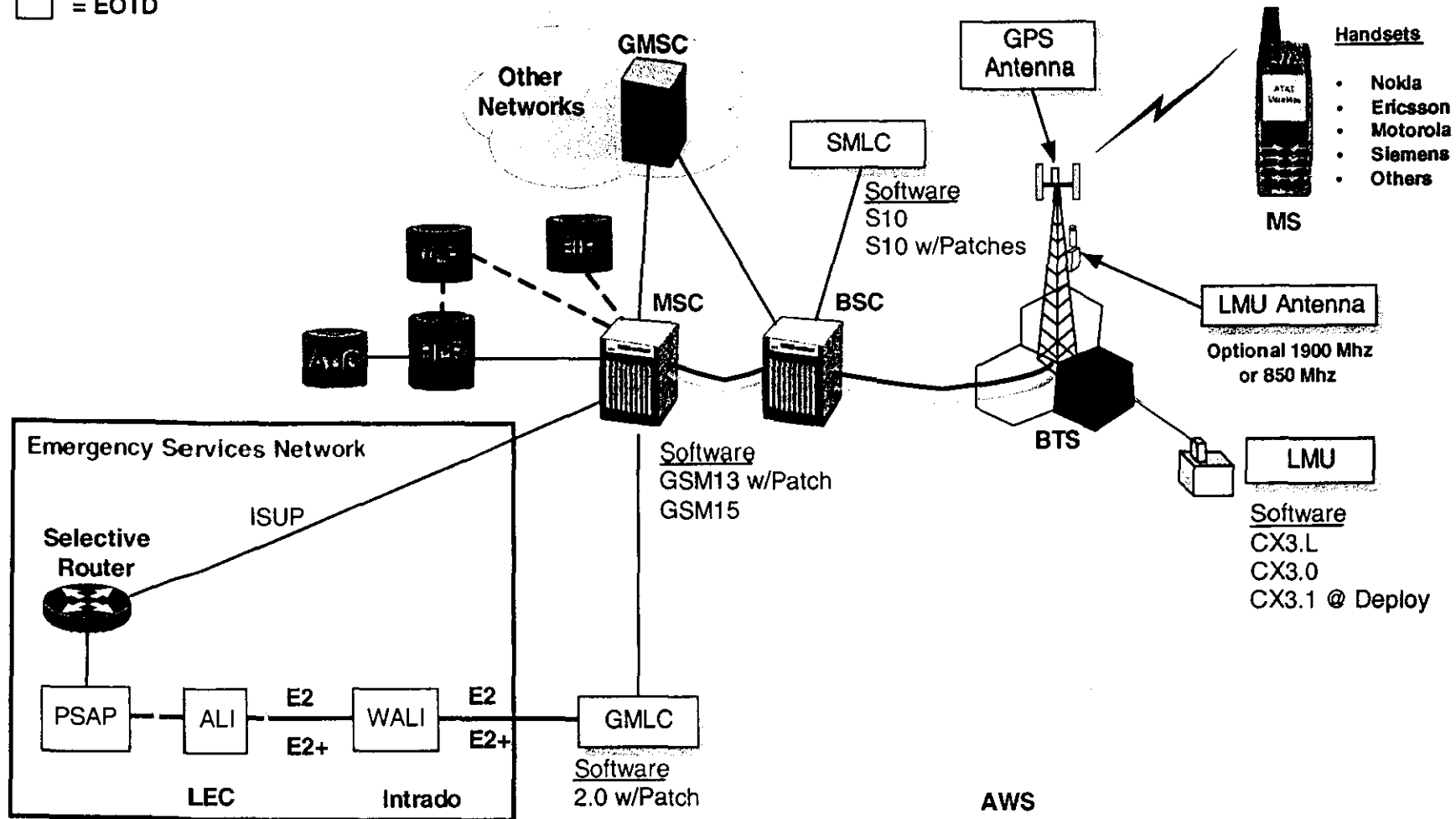


# GSM Network




# Nokia Topology

□ = EOTD



# Ericsson Topology

 = EOTD

